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UNITED STATES DEPARTMENT OF AGRICULTURE

DEPARTMENT BULLETIN No. 1199

Washington, D. C. ▼ September, 1926

LIST OF BULLETINS OF THE AGRICULTURAL EXPERIMENT STATIONS FOR THE CALENDAR YEARS 1923 AND 1924

SUPPLEMENT 2

By

CATHERINE E. PENNINGTON, Library Assistant
Office of Experiment Stations

WASHINGTON
GOVERNMENT PRINTING OFFICE
1926

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By CATHERINE E. PENNINGTON, *Library Assistant, Office of Experiment Stations*

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286. Sandiness in ice cream. P. S. Lucas and George Spitzer. Jan., 1925.
287. Factors affecting the yield of ice cream. H. W. Gregory and V. C. Manhart. Nov., 1924.
288. Growing tomatoes for the canning factory. H. D. Brown. Nov., 1924.
289. Soybean oilmeal and ground soybeans as protein supplements in the dairy ration. L. H. Fairchild and J. W. Wilbur. Dec., 1924.

IOWA AGRICULTURAL EXPERIMENT STATION, AMES

BULLETINS

210. Corn substitutes for fattening lambs. J. M. Evvard, Russell Dunn, and C. C. Culbertson. Mar., 1923.
211. Fifty years of farmers' elevators in Iowa. E. G. Nourse. Mar., 1923.
212. A comparison of roughages for milk production. A. C. McCandlish and Earl Weaver. Mar., 1923.
213. The Iowa system of soil management. W. H. Stevenson and P. E. Brown. May, 1923.
214. Relation of types of tenancy to types of farming in Iowa. C. L. Holmes. May, 1923.
215. Cane and beet molasses for fattening lambs. J. M. Evvard, C. C. Culbertson, and Q. W. Wallace. Apr., 1923.
216. Ensiling versus drying soft ear corn. J. M. Evvard, A. R. Lamb, E. J. Maynard, and H. D. Hughes. July, 1923. Also abridged edition.
217. The social aspects of rural life and farm tenantry, Cedar County, Iowa. G. H. Von Tungeln, E. L. Kirkpatrick, C. R. Hoffer, and J. F. Thaden. Aug., 1923.
218. Vinegar fermentation and home production of cider vinegar. A. R. Lamb and Edith Wilson. Aug., 1923. Also abridged edition.
219. Concrete fence posts. J. B. Davidson. Jan., 1924.
220. The apple trumpet leafminer (*Tischeria malifoliella* Clem.). E. W. Dunnam. June, 1924.
221. Crop yields on soil experiment fields in Iowa. W. H. Stevenson, P. E. Brown, and L. W. Forman. July, 1924.
222. Apple storage investigations: Fourth progress report, I, Jonathan-spot and soft-scald; II, apple-scald and internal breakdown. H. H. Plagge and T. J. Maney. Oct., 1924.

223. The growth, returns and uses of planted cottonwood in Iowa. G. B. MacDonald. Nov., 1924.
224. Rural social survey of Hudson, Orange, and Jesup consolidated school districts, Blackhawk and Buchanan Counties, Iowa. G. H. Von Tungeln and H. L. Eells. Nov., 1924.

RESEARCH BULLETINS

74. Studies on ropiness in cultures of *Streptococcus lactis*. B. W. Hammer. Jan., 1923.
75. The color of soils in relation to organic matter content. P. E. Brown and A. M. O'Neal, jr. Mar., 1923.
76. Relationships between hydrogen ion, hydroxyl ion and salt concentrations and the growth of seven soil molds. H. W. Johnson. Jan., 1923.
77. Dry rot of corn. L. W. Durrell. July, 1923.
78. Bionomics and control of the potato leafhopper (*Empoasca mali* Le Baron). F. A. Fenton and Albert Hartzell. July, 1923.
79. Raising orphan pigs: I, Protein modifications of cows' whole milk, frequency of feeding, nutritive ratio studies. J. M. Evvard, G. V. Glatfelter, and Q. W. Wallace. July, 1923.
80. The volatile acids produced by starters and by organisms isolated from them. B. W. Hammer and F. F. Sherwood. July, 1923.
81. Studies on *Streptococcus paracitrovorus* group. B. W. Hammer and M. P. Baker. July, 1923.

SOIL SURVEY REPORTS

29. Mahaska County soils. W. H. Stevenson, P. E. Brown, L. W. Forman, and J. A. Elwell. June, 1923.
30. Fayette County soils. W. H. Stevenson, P. E. Brown, L. W. Forman, H. J. Harper, and H. W. Warner. June, 1923.
31. Wright County soils. W. H. Stevenson, P. E. Brown, L. W. Forman, and T. H. Benton. June, 1923.
32. Johnson County soils. W. H. Stevenson, P. E. Brown, L. W. Forman, T. H. Benton, and G. H. Artis. June, 1923.
33. Mills County soils. W. H. Stevenson, P. E. Brown, L. W. Forman, and N. J. Russel. Mar., 1924.
34. Boone County soils. W. H. Stevenson, P. E. Brown, L. W. Forman, A. M. O'Neal, and A. M. Deyoe. Apr., 1924.
35. Dubuque County soils. W. H. Stevenson, P. E. Brown, C. L. Orrben, L. W. Forman, J. L. Boatman, and W. G. Baker. Sept., 1924.
36. Emmet County soils. W. H. Stevenson, P. E Brown, D. S. Gray, L. W. Forman, and W. G. Baker. Nov., 1924.
37. Dickinson County soils. W. H. Stevenson, P. E. Brown, L. W. Forman, J. L. Boatman, and W. G. Baker. Dec., 1924.

KANSAS AGRICULTURAL EXPERIMENT STATION, MANHATTAN

BULLETINS

230. Marketing milk in six cities of Kansas. F. L. Thomsen. Nov., 1923.
231. Potato disease control in Kansas. E. A. Stokdyk and L. E. Melchers. Mar., 1924.
232. Assessment and equalization of farm and city real estate in Kansas. Eric Englund. July, 1924.
233. The relation of feeding and age of calving to the development of dairy heifers. O. E. Reed, J. B. Fitch, and H. W. Cave. July, 1924.
234. Tax revision in Kansas. Eric Englund. Dec., 1924.

TECHNICAL BULLETINS

10. Blackleg vaccines, their production and use. J. P. Scott. June, 1923.
11. The Hessian fly in Kansas. J. W. McColloch. July, 1923.
12. Relative water requirement of corn and sorghums. E. C. Miller. Oct., 1923.
13. Seeding small grain in furrows. S. C. Salmon. Jan., 1924.

KENTUCKY AGRICULTURAL EXPERIMENT STATION, LEXINGTON

BULLETINS

246. The marketing of Kentucky strawberries. O. B. Jesness and D. G. Card. Jan., 1923.
247. The marketing of Kentucky bluegrass and orchard grass seeds. D. G. Card, June, 1923.
248. (Research bulletin.) Studies of dairy cattle: II, Milk production. J. J. Hooper. July, 1923.
249. Feeds and their use: Inspection and analyses. J. D. Turner, H. D. Spears, and E. L. Jackson. Oct., 1923.
250. Calcium metabolism in the laying hen. G. D. Buckner, J. H. Martin, and A. M. Peter. Oct., 1923.
251. Analyses of commercial fertilizers. H. E. Curtis, H. R. Allen, and Lelah Gault. Dec. 31, 1923.
252. (Research bulletin.) Calcium metabolism in the laying hen, II. G. D. Buckner, J. H. Martin, and A. M. Peter. Mar., 1924.
253. A study of farm organization and management in Mason and Fleming Counties. W. D. Nicholls, C. U. Jett, and Z. L. Galloway. June, 1924.
254. (Research bulletin.) The grape leafhoppers of blue grass Kentucky. H. H. Jewett. Aug., 1924.
255. Strawberries and farm profits in western Kentucky. J. B. Hutson. Dec., 1924.
256. Analyses of commercial fertilizers. H. E. Curtis, H. R. Allen, and Lelah Gault. Dec. 31, 1924.

LOUISIANA AGRICULTURAL EXPERIMENT STATION, BATON ROUGE

BULLETINS

185. The sugar cane mealy bug and its control in Louisiana. E. R. Barber. Jan., 1923.
186. Second preliminary report on parasites found in ruminants at the municipal abattoir, Baton Rouge, La. Gerard Dikmans. Jan., 1923.
187. "Hogging down crops": Cost of producing crops and pork. A. F. Kidder and W. H. Dalrymple. Feb., 1923.
188. The sweet potato weevil [*Cylas formicarius* Fab.] in Louisiana and its control. C. E. Smith. Aug., 1923.
189. *Melilotus indica* on fall plant sugar cane. W. G. Taggart. Aug., 1923.
190. "Dry rot" in buildings and building material. C. W. Edgerton. Apr., 1924.
191. The sugar cane disease situation in 1923 and 1924. C. W. Edgerton, W. G. Taggart, and E. C. Tims. Dec., 1924.
192. Sugar beets in Louisiana. A. F. Kidder and C. E. Coates. Dec., 1924.

MAINE AGRICULTURAL EXPERIMENT STATION, ORONO

BULLETINS

310. The cause and permanence of size differences in apple trees. Karl Sax and J. W. Gowen. Feb., 1923.
311. Studies in milk secretion; XIV, The effect of age on the milk yields and butter-fat percentages of Guernsey advanced registry cattle. J. W. Gowen. June, 1923.
312. Potato spindle-tuber. Donald Folsom. Aug., 1923.
313. The summer food plants of the green apple aphid (*Aphis pomi*). E. M. Patch. Oct., 1923.
314. Studies on conformation in relation to milk producing capacity in cattle: III, Conformation and milk yield in the light of the personal equation of the dairy cattle judge. J. W. Gowen. Nov., 1923.
315. Abstracts of papers, not included in bulletins; finances; meteorology; index. Dec., 1923.
316. The importance and natural spread of potato degeneration diseases. Donald Folsom and E. S. Schultz. Jan., 1924.
317. The buckthorn aphid (*Aphis abbreviata* Patch). E. M. Patch. Apr., 1924.
318. Interpretation of dairy pedigrees. J. W. Gowen. July, 1924.
319. The blueberry leaf-beetle and some of its relatives. H. C. Fall and W. C. Woods. Oct., 1924.

320. The influence of ultra-violet light on nutrition in poultry. J. M. Murray, C. C. Little, and W. T. Bovie. Dec., 1924.
321. Abstracts of papers not included in bulletins; finances; meteorology; index. Dec., 1924.

MARYLAND AGRICULTURAL EXPERIMENT STATION, COLLEGE PARK

BULLETINS

251. Fertilizer, variety and seed selection experiments on Irish and sweet potatoes. T. H. White. Jan., 1923.
252. Experiments on the control of the woolly aphis. E. N. Cory. Feb., 1923.
253. Sweet clover for summer pasture and green manure. J. E. Metzger. Mar., 1923.
254. Forecasting the date and duration of the best canning stage for sweet corn. C. O. Appleman. May, 1923.
255. Moisture relations of peach buds during winter and spring. E. S. Johnston. June, 1923.
256. Fruit-rotting Sclerotinias: I, Apothecia of the brown-rot fungus. J. B. S. Norton, W. N. Ezekiel, and R. A. Jehle. Aug., 1923.
257. Is there normally a cross transfer of foods, water, and mineral nutrients in woody plants? E. C. Auchter. Sept., 1923.
258. Changes in quality and chemical composition of parsnips under various storage conditions. V. R. Boswell. Oct., 1923.
259. Some studies in the production of double blooms of stocks (*Mathiola icana annua*). T. H. White. Nov., 1923.
260. The effect of heat upon the availability of the phosphorus in basic phosphate rock. A. G. McCall and C. P. Wilhelm. Dec., 1923.
261. The control of truck crop pests by dusting. E. N. Cory and S. F. Potts. Feb., 1924.
262. Spraying for control of diseases and insects of the apple. R. A. Jehle and E. N. Cory. Mar., 1924.
263. Dusting and spraying cantaloupes. R. A. Jehle and S. F. Potts. Apr., 1924.
264. Control of the European red mite (*Paratetranychus pilosus* Can. and Fanz). C. C. Hamilton. Apr., 1924.
265. Potato sprouts as an index of seed value. C. O. Appleman. May, 1924.
266. What is the value of a ton of stable manure? A. G. McCall and T. H. White. May, 1924.
267. Some chemical aspects of sweet corn drying. C. O. Appleman. June, 1924.
268. Green-manuring crops for soil improvement. A. G. McCall. July, 1924.
269. The biology and control of the chrysanthemum midge (*Diarthronomyia hypogaea* F. Low). C. C. Hamilton. Aug., 1924.
270. Growth of potato plants in sand cultures, treated with the "six types" of nutrient solutions. E. S. Johnston. Sept., 1924.
271. Fruit-rotting Sclerotinias: II, The American brown-rot fungi. W. N. Ezekiel. Oct., 1924.

MASSACHUSETTS AGRICULTURAL EXPERIMENT STATION, AMHERST

BULLETINS

213. Tobacco wildfire in 1922. P. J. Anderson and G. H. Chapman. Jan., 1923.
214. Combating apple scab, spraying and dusting experiments in 1922. W. S. Krout. Jan., 1923.
215. Pedigree, the basis of selecting breeding males for egg production. F. A. Hays and Ruby Sanborn. Apr., 1923.
216. Digestion experiments with cattle feeds. J. B. Lindsey, C. L. Beals, P. H. Smith, and J. G. Archibald. June, 1923. Also popular edition.
217. The value of buttermilk and lactic acid in pig feeding. J. B. Lindsey and C. L. Beals. Sept., 1923.
218. The control of the squash vine borer in Massachusetts. H. N. Worthley. Oct., 1923.
219. Combating apple scab, spraying and dusting experiments in 1923 with summary of three years' results. W. L. Doran and A. V. Osmun. Jan., 1924.
220. Correlation studies on winter fecundity. F. A. Hays, Ruby Sanborn, and L. L. James. Nov., 1924.
221. The smut disease of onions. P. J. Anderson and A. V. Osmun. Dec., 1924.

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6. The inheritance of fertility and hatchability in poultry. F. A. Hays and Ruby Sanborn. Jan., 1924.

MICHIGAN AGRICULTURAL EXPERIMENT STATION, EAST LANSING

SPECIAL BULLETINS

119. The septic tank and tile sewage disposal system. H. H. Musselman and O. E. Robey. Aug., 1923.
120. The microscopic identification and determination of the specific ingredients in stock feeds. O. B. Winter. Sept., 1923.
121. Grape production in Michigan. N. L. Partridge. Feb., 1923.
122. Improvement of the farm woodlot. A. K. Chittenden. Sept., 1923.
123. Second growth hardwood forests in Michigan. P. L. Buttrick. Sept., 1923.
124. The colorimetric hydrogen-ion determination as a means of locating faulty methods at city milk plants. L. H. Cooledge. Sept., 1923.
125. Michigan potato diseases. G. H. Coons and J. E. Kotila. Dec., 1923.
126. An analysis of the peach variety question in Michigan. Stanley Johnston. Jan., 1924.
127. Nitrogen-carrying fertilizers and the bearing habits of mature apple trees. F. C. Bradford. Jan., 1924.
128. Sandy soils of Southern Peninsula of Michigan. M. M. McCool and J. O. Veatch. Jan., 1924.
129. Bean growing in Michigan. J. F. Cox and H. R. Pettigrove. Apr., 1924.
130. The clovers and clover seed production in Michigan. J. F. Cox and C. R. Megee. Mar., 1924.
131. Tomato growing in Michigan. E. P. Lewis. Mar., 1924. Revision of Special bul. 89.
132. Common pests of field and garden crops. R. H. Pettit. Mar., 1924.
133. Fertilizers, what they are and how to use them. M. M. McCool and C. E. Millar. June, 1924.
134. Greenhouse insects. E. I. McDaniel. June, 1924.
135. Seasonal management for commercial apiaries. R. H. Kelty. June, 1924. Supplement published separately.
136. The muck soils of Michigan, their management for the production of general crops. M. M. McCool and P. M. Harmer. Dec., 1925.

TECHNICAL BULLETINS

59. Flat sours: Part I, An interesting thermophile encountered in canned string beans. Z. N. Wyant.— Part II, Bacteriological studies of flat sours of cold packed canned peas. Z. N. Wyant and R. L. Tweed. Feb., 1923.
60. The influence of manufacturing operations on the bacterial content of ice cream. F. W. Fabian and R. H. Cromley. Feb., 1923.
61. The relation of high cellular counts to *Bacterium abortus* infection of the udder. R. L. Tweed. Dec., 1923.
62. Some physical and chemical properties of several soil profiles. L. C. Wheeting. Jan., 1924.
63. Studies on Michigan celery diseases: II, A study of the early blight fungus, *Cercospora apii* Fres. L. J. Klotz. Nov., 1923.
64. The salt requirements of Marquis wheat in water culture for the vegetative phase of development. R. P. Hibbard and S. Gershberg. June, 1924.
65. Studies on the non-virulent living culture of *Bact. abortus* toward protective vaccination of cattle against bovine infectious abortion (Bang's abortion disease.) I. F. Huddleson. July, 1924.
66. The significance of *Bacterium abortus* antibodies (agglutinins and complement-fixing) found in the sera of calves at birth or after nursing. I. F. Huddleson and D. E. Hasley. Dec., 1924.

QUARTERLY BULLETINS

Quarterly bulletins, Vol. 5, No. 3—Vol. 7, No. 2. Feb., 1923—Nov., 1924.. Each number contains a variety of articles relating to agricultural practice, based upon investigational work of the station.

MINNESOTA AGRICULTURAL EXPERIMENT STATION, UNIVERSITY FARM, ST. PAUL

BULLETINS

202. Farmers' co-operation in Minnesota, 1917–1922. H. B. Price. Jan., 1923.
203. Second growth on cut-over lands in St. Louis County. T. S. Hansen. May, 1923.
204. Wheat and flax as combination crops. A. C. Arny. Mar., 1923.

205. A study of farm organization in southwestern Minnesota. G. A. Pond and J. W. Tapp. Nov., 1923.
206. Wheat and flax as combination crops. A. C. Arny. Mar., 1924.
207. Cornstalk sirup investigations. J. J. Willaman, G. O. Burr, and F. R. Davison. Mar., 1924.
208. Investigations in stump and stone removal. M. J. Thompson and A. J. Schwantes. Mar., 1924.
209. The cost of producing apples in Minnesota, 1916–1920. W. G. Brierley, W. J. Koppen and G. A. Pond. Apr., 1924.
210. Methods of corn breeding. H. K. Hayes and Lee Alexander. Apr., 1924.
211. Cooperative central marketing organization. J. D. Black and H. B. Price. Apr., 1924.
212. Potato investigations at the North central experiment station, 1914-1923. O. I. Bergh. May, 1924.
213. Feed requirements and cost of gains of spring and fall pigs. E. F. Ferrin and M. A. McCarty. June, 1924.
214. Observations on the clear-winged grasshopper (*Camnula pellucida* Scudder). J. R. Parker. July, 1924.
215. Raising the dairy calf when whole milk is sold. C. H. Eckles and T. W. Gullickson. June, 1924.
216. Farm drainage methods: Survey and design, 1908–1922. H. B. Roe. June, 1924.
217. Farm drainage methods: Construction, 1908–1922. H. B. Roe. June, 1924.
218. Feeding the dairy herd. C. H. Eckles and O. G. Schaefer. Dec., 1924.

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12. Studies in the physical ecology of the Noctuidae. W. C. Cook. Mar., 1923.
13. The normal and pathological histology of the ventriculus of the honey bee; with special reference to infection with *Nosema apis*. Marshall Hertig. July, 1923.
14. The parasitism of *Colletotrichum lindemuthianum*. J. G. Leach. Mar., 1923.
15. A study of the damping-off disease of coniferous seedlings. T. S. Hansen, W. H. Kenety, G. H. Wiggin, and E. C. Stakman. Apr., 1923.
16. Sunflower rust. D. L. Bailey. Aug. 1923.
17. Factors influencing the pathogenicity of *Helminthosporium sativum*. Louise Dosdall. July, 1923.
18. Wheat scab in Minnesota. Jean MacInnes and Raymond Fogelman. Aug., 1923.
19. Viscosity as a measure of hydration capacity of wheat flour and its relation to baking strength. P. F. Sharp and R. A. Gortner. Oct., 1923.
20. A study of wilt resistance in flax. H. D. Barker. Nov., 1923.
21. Reaction of barley varieties to *Helminthosporium sativum:* Part I, Varietal resistance; Part II, inheritance studies in a cross between Lion and Manchuria. H. K. Hayes, E. C. Stakman, Fred Griffee, and J. J. Christensen. July, 1923.
22. Root-rots of wheat. A. W. Henry. Apr., 1924.
23. A study of the physiologic and pathologic changes occurring in the reproductive organs of the cow following parturition. W. L. Boyd. Mar., 1925.
24. Observations of the effect of *B. abortus* Bang on the weight of the spleen of the guinea pig. C. P. Fitch and R. E. Lubbehusen. Aug., 1924.
25. Potato breeding methods. F. A. Krantz. Dec., 1924.
26. Economic aspects of creamery organization. J. D. Black and E. S. Guthrie. Dec., 1924.

MISSISSIPPI AGRICULTURAL EXPERIMENT STATION, A. AND M. COLLEGE

BULLETINS

212. Cotton spacing. H. B. Brown. Jan., 1923.
213. Report from Raymond branch experiment station for 1920 to 1922 inclusive. C. B. Anders. Jan., 1923.
214. Experiments with feeding steers, using cottonseed meal and varying proportions of corn and cottonseed meal. Enoch Barnett and C. J. Goodell. Jan., 1923.
215. Cotton experiments, 1922, Delta branch station. W. E. Ayres. Jan., 1923.
216. The Mississippi agricultural experiment stations, an historical sketch. J. W. Bailey. Mar., 1923.
217. The Satsuma orange in south Mississippi. E. B. Ferris and F. B. Richardson. Apr., 1923.
218. Grazing and feeding trials with hogs. Enoch Barnett and C. J. Goodell. June 1923.

219. Cotton experiments, 1923, varieties, fertilizers, and weevil control. J. F. O'Kelly and Rowland Cowart. Dec., 1923.
220. Report from Holly Springs branch experiment station for 1923. C. T. Ames. Dec., 1923.
221. Report, Delta branch experiment station, 1922 and 1923. W. E. Ayres. Jan., 1924.
222. Steer feeding experiments: Corn silage versus corn and soybean silage; velvet bean-and-pod meal, cottonseed meal, and varying proportions of corn and velvet bean-and-pod meal; corn, sorghum and sunflower silages. C. J. Goodell. May, 1924.
223. Report from Holly Springs branch experiment station for 1924. C. T. Ames. Dec., 1924.
224. Report, Raymond branch experiment station, 1923 and 1924. C. B. Anders. Dec., 1924.
225. Report, South Mississippi branch experiment station, 1922, 1923, and 1924. E. B. Ferris. Dec., 1924.
226. Cotton experiments, 1924, varieties and fertilizers. J. F. O'Kelly and Rowland Cowart. Dec., 1924.

MISSOURI AGRICULTURAL EXPERIMENT STATION, COLUMBIA

BULLETINS

198. Spraying Irish potatoes. J. T. Rosa, jr. Jan., 1923.
199. Cooperative live stock shipping associations in Missouri. Ralph Loomis. Jan., 1923.
200. Testing fertilizers for Missouri farmers, 1922. F. B. Mumford and L. D. Haigh. Feb., 1923.
201. The practical control of infectious abortion in cattle. J. W. Connaway. Feb., 1923.
202. Soil experiments on the gravelly Ozark upland (soil type, Clarksville gravelly loam). M. F. Miller and F. L. Duley. Mar., 1923.
203. Soil experiments on the brown silt loam of the Ozark border region (soil type, Union silt loam). M. F. Miller and F. L. Duley. Apr., 1923.
204. Controlling soil moisture for vegetable crops in Missouri. J. T. Rosa. June, 1923.
205. A new method of making engine oil emulsions. A. M. Burroughs. Aug., 1923.
206. A comparison of Jersey sires, based on the average "mature equivalent" fat production of the daughters. C. W. Turner and A. C. Ragsdale. Oct., 1923.
207. Peach culture in Missouri. H. D. Hooker, Jr. Dec., 1923.
208. Grape growing in Missouri. H. G. Swartwout. Jan., 1924.
209. Testing fertilizers for Missouri farmers, 1923. F. B. Mumford and L. D. Haigh, Feb., 1924.
210. Contributions to knowledge in agriculture, one year's work, agricultural experiment station. (Report of the director, July 1, 1922 to June 30, 1923). F. B. Mumford. Feb., 1924.
211. Controlling surface erosion of farm lands. F. L. Duley. Apr., 1924.
212. Tomato culture in Missouri. J. T. Quinn. May, 1924.
213. Costs of family living on the farm. O. R. Johnson. May, 1924.
214. Why build a silo? And how. J. C. Wooley, E. A. Trowbridge, and A. C. Ragsdale. June, 1924.
215. Injurious insect pests of strawberries. O. C. McBride. June, 1924.
216. Spraying Missouri fruits. T. J. Talbert. July, 1924.
217. A comparison of Holstein-Friesian sires, based on the average "mature equivalent" fat production of the daughters. C. W. Turner and A. C. Ragsdale. July, 1924.
218. Limited use of shelled corn in fattening two-year-old cattle. E. A. Trowbridge and H. D. Fox. Aug., 1924.
219. The cost and income of the farm poultry flock. O. R. Johnson and B. H. Frame. Aug., 1924.
220. Corn and soybeans. W. C. Etheridge and C. A. Helm. Sept., 1924.
221. The relation between age, weight, and fat production in dairy cows. C. W. Turner, A. C. Ragsdale, and Samuel Brody. Sept., 1924.
222. Factors affecting the percentage of fat in cows' milk. C. W. Turner. Oct., 1924.
223. The use of a limited amount of molasses in feeding yearling steers. E. A. Trowbridge. Oct., 1924.
224. Hogging down corn and soybeans. L. A. Weaver. Nov., 1924.

225. The influence of animal and vegetable proteins on egg production. H. L. Kempster. Nov., 1924.
226. Production and feeding of silage. L. J. Stadler, M. M. Jones, C. W. Turner, and P. M. Bernard. Dec., 1924.
227. Missouri flour for Missouri breadmaking. L. E. Davis. Dec., 1924.

RESEARCH BULLETINS

57. Studies in the nutrition of the strawberry. V. R. Gardner. Mar., 1923.
58. Scale insects of Missouri. A. H. Hollinger. Apr., 1923.
59. Studies in animal nutrition: IV, The nitrogen, ash, and phosphorus distribution in beef flesh as affected by age and condition. W. S. Ritchie, C. R. Moulton, P. F. Trowbridge, and L. D. Haigh. May, 1923.
60. The chemical nature of a colloidal clay. Richard Bradfield. June, 1923.
61. Studies in animal nutrition: V, Changes in the composition of the mature dairy cow while fattening. C. R. Moulton, P. F. Trowbridge, and L. D. Haigh. Oct., 1923.
62. Normal growth of domestic animals: Growth curves for beef steers. A. G. Hogan and H. D. Fox.— Growth of the Hereford-Shorthorn steer. C. R. Moulton.— Growth of the dairy cow. Samuel Brody and A. C. Ragsdale.— Growth curves of colts. D. W. Chittenden, E. A. Trowbridge and A. G. Hogan.— Growth curves of sheep. H. D. Fox, E. A. Trowbridge and A. G. Hogan.— Growth curves of swine. F. B. Mumford, A. G. Hogan and P. M. Bernard.— Rate of growth of the domestic fowl. H. L. Kempster and E. W. Henderson.— The equivalence of age in some domestic animals. Samuel Brody and A. C. Ragsdale. Nov., 1923.
63. Erosion and surface runoff under different soil conditions. F. L. Duley and M. F. Miller. Dec., 1923.
64. The influence of hydrogen-ion concentration on the growth of *Fusarium lycopersici* and on tomato wilt. I. T. Scott. Jan., 1924.
65. Silage investigations: Loss of nutrients in the silo and during the field curing of corn. A. C. Ragsdale and C. W. Turner. Feb., 1924.
66. The minimum protein requirement for growing dairy heifers. W. W. Swett, C. H. Eckles, and A. G. Ragsdale. Mar., 1924.
67. The change of form with age in the dairy cow. Samuel Brody and A. C. Ragsdale. Sept., 1924.
68. Normal immunity reactions of the cow and the calf with reference to antibody transmission in the colostrum. J. B. Nelson. Aug., 1924.
69. The effect of the sugar content in the manufacture of commercial ice cream. W. H. E. Reid. Sept., 1924.
70. The effect of different percentages of butterfat on the physical properties of ice cream. D. H. Nelson and W. H. E. Reid. Oct., 1924.
71. Effect of several ingredients used in the manufacture of commercial ice cream on the change in temperature during the freezing process. W. H. E. Reid and D. H. Nelson. Nov., 1924.
72. Changes produced in apple trees by various types of pruning. H. D. Hooker, jr. Dec., 1924.

MONTANA AGRICULTURAL EXPERIMENT STATION, BOZEMAN

BULLETINS

152. Experiments with alfalfa and grasses at the Judith Basin substation. N. F. Woodward. Jan., 1923.
153. Annual forage crops on dry land at the Judith Basin substation. N. F. Woodward. Jan., 1923.
154. The fruit-tree leaf-roller [*Cacoecia argyrospila* Walk., order Lepidoptera, family Tortricidae] in the Bitter Root Valley. W. S. Regan. Feb., 1923.
155. Studies in egg preservation. D. B. Swingle and G. E. Poole. Feb., 1923.
156. Orchard cultural practices. Harvey Thornber. Mar., 1923.
157. Sweet corn in the higher altitudes. Harvey Thornber. Mar., 1923.
158. Soils of Sheridan County, preliminary report. L. F. Gieseker. Apr., 1923.
159. Chemical analyses of Montana soils. Edmund Burke and R. M. Pinckney. Aug., 1923.
160. A social study of Ravalli County, Montana. W. H. Baumgartel. Sept., 1923.
161. Animal protein for laying hens. W. F. Schoppe. Oct., 1923.
162. Sunflowers under irrigation in Montana. I. J. Jensen. Dec., 1923.
163. Acidity in relation to quality in sunflower silage. M. J. Blish. Jan., 1924.
164. Winter feeding of breeding ewes. W. E. Joseph. Feb., 1924.

165. Feeding brood sows and growing the litters. W. E. Joseph. May, 1924.
166. Irrigated pastures. Dan Hansen. Sept., 1924.
167. Ten years' grain and seed testing in Montana (Annual report of the Montana grain inspection laboratory, July 1, 1922, to June 30, 1923). Clyde McKee and W. O. Whitcomb. Oct., 1924.
168. Premature seeding of celery. C. C. Starring. Nov., 1924.
169. Feeding pigs in a dry lot. W. E. Joseph. Dec., 1924.

NEBRASKA AGRICULTURAL EXPERIMENT STATION, LINCOLN

BULLETINS

183. Experiments with poisoned baits for grasshoppers. M. H. Swenk and E. E. Wehr. Jan., 1923.
184. Growth studies of dairy heifers: II, Protein requirements for growing heifers. [Experiment conducted by W. B. Nevens and J. W. Hendrickson, under the direction of J. H. Frandsen . . . prepared for publication by H. P. Davis and Benjamin Masurovsky.] Jan., 1923.
185. The Nebraska farm family, some land tenure phases. J. O. Rankin. Feb., 1923.
186. Potato diseases in Nebraska. R. W. Goss. Feb., 1923.
187. Purchasing power of Nebraska grains. H. C. Filley and E. A. Frerichs. Mar., 1923.
188. Productive seed corn. T. A. Kiesselbach. Apr., 1923. Data . . . abstracted from Research buls. 13, 16, 19, 20.
189. Some new hybrid strawberries. R. F. Howard and C. C. Wiggans. Apr., 1923.
190. Crop rotation under irrigation. J. A. Holden. Apr., 1923.
191. Nebraska farm homes, a comparison of some living conditions of owners, part-owners, and tenants. J. O. Rankin. May, 1923.
192. Dry farming investigations at the Scottsbluff substation. L. L. Zook. July, 1923.
193. Sixteen years' grain production at the North Platte substation. L. L. Zook and W. W. Burr. July, 1923.
194. Lamb feeding experiments in western Nebraska. J. A. Holden. Aug., 1923.
195. The more important poultry diseases. Leunis Van Es and H. M. Martin. Oct., 1923.
196. Nebraska farms tenancy, some community phases. J. O. Rankin. Oct., 1923.
197. Winter lamb feeding, 1919–20, 1920–21, 1921–22. W. H. Savin. Oct., 1923.
198. Factors affecting the price of farm products. H. C. Filley. Nov., 1923.
199. The relation of low temperatures to root injury of the apple. R. F. Howard. Apr., 1924.
200. Nebraska tractor tests, 1921, 1922, and 1923. E. E. Brackett, O. W. Sjogren, C. W. Smith, and F. R. Nohavec. Aug., 1924.
201. Spring small grains. T. A. Kiesselbach and W. E. Lyness. Nov., 1924.
202. Landlords of Nebraska farms. J. O. Rankin. Nov., 1924.
203. Ice cream formulas and standardization. H. P. Davis, P. A. Downs, and Benjamin Masurovsky. Nov., 1924.
204. Fattening western lambs, 1923–1924. H. D. Fox. Dec., 1924.

RESEARCH BULLETINS

23. Relation of environment and other factors to potato wilt caused by *Fusarium oxysporum*. R. W. Goss. Mar., 1923.
24. Seed potato investigations. H. O. Werner and R. F. Howard. Dec., 1923. Bul. 207 is popular edition, based on Res. b. 24, 32.
25. A study of the environmental conditions influencing the development of stem rust in the absence of an alternate host: II. Infection studies with *Puccinia graminis tritici*, Form III and Form IX. G. L. Peltier. Dec., 1923.
26. Effect of environment on potato degeneration diseases. R. W. Goss. Mar., 1924.
27. Potato wilt and stem-end rot caused by *Fusarium eumartii*. R. W. Goss. June, 1924.
28. Control equipment for the study of the relation of environment to disease. G. L. Peltier and R. W. Goss. June, 1924.

NEVADA AGRICULTURAL EXPERIMENT STATION, RENO

BULLETINS

105. The low larkspur (*Delphinium andersoni*), a plant of the spring range, poisonous to cattle. C. E. Fleming, M. R. Miller, and L. R. Vawter. Apr., 1923.
106. Fattening lambs with barley and alfalfa. C. E. Fleming. Sept., 1924.

107. The Metropolis reclamation project, a survey of farm, home, and social conditions upon a project still in an early state of development. J. C. Lambert. Nov., 1924.

NEW HAMPSHIRE AGRICULTURAL EXPERIMENT STATION, DURHAM

BULLETINS

208. Progress of agricultural experiments, 1922, a report of the director . . . for the year 1922, including a financial statement for the fiscal year ending June 30, 1922. J. C. Kendall. Jan., 1923.
209. Inspection of commercial feeding-stuffs, made for the State department of agriculture. H. R. Kraybill and T. O. Smith. Aug., 1923.
210. Inspection of commercial fertilizers for 1923, made for the State department of agriculture. H. R. Kraybill, T. O. Smith, and C. P. Spaeth. Oct., 1923.
211. Results of seed tests for 1923, made for the State department of agriculture. M. G. Eastman. Dec., 1923.
212. Progress of agricultural experiments, 1923, a report of the director . . . for the year 1923, including a financial statement for the fiscal year ending June 30, 1923. J. C. Kendall. Jan., 1924.
213. Inspection of commercial feeding-stuffs, 1924, made for the State department of agriculture. H. R. Kraybill, T. O. Smith, and J. T. Sullivan. Aug., 1924.
214. Inspection of commercial fertilizers for 1924, made for the State department of agriculture. H. R. Kraybill, T. O. Smith, and S. R. Shimer. Nov., 1924.
215. Results of seed tests for 1924, made for the State department of agriculture. M. G. Eastman. Dec., 1924.

TECHNICAL BULLETINS

22. Experiments on the field control of snapdragon rust together with a description of a method for the control of the disease in greenhouses. O. R. Butler. May, 1923.
23. Effect of shading and ringing upon the chemical composition of apple and peach trees. H. R. Kraybill. June, 1923.
24. Surface treatments for the cabbage maggot. W. C. O'Kane, C. R. Cleveland, and C. H. Hadley. June, 1923.
25. Inheritance of size and conformation in sheep. E. G. Ritzman. June, 1923.
26. The effect of varying feed levels on the physiological economy of steers. E. G. Ritzman and F. G. Benedict. June, 1924.
27. Experiments on resistance of apple roots to low temperatures. G. F. Potter. June, 1924.

NEW JERSEY AGRICULTURAL EXPERIMENT STATIONS, NEW BRUNSWICK

BULLETINS

377. Results of seed and legume inoculant inspection for 1922. J. G. Fiske. Jan., 1923.
378. The blackberry psyllid, *Trioza tripunctata* Fitch. Alvah Peterson. Feb., 1923.
379. Dry-mix sulfur lime, a substitute for self-boiled lime sulfur and summer-strength concentrated lime-sulfur. A. J. Farley. Feb. 1, 1923.
380. Fumigation of potting soil with carbon bisulfide for the control of the Japanese beetle (*Popillia japonica* Newm.). W. E. Fleming. Jan., 1923.
381. Some principles which underlie the making and use of nicotine dust. T. J. Headlee and Willem Rudolfs. Jan., 1923.
382. Fertilizer registrations for 1923. C. S. Cathcart. Jan., 1923.
383. Ten years of potato spraying in New Jersey. W. H. Martin. Apr., 1923.
384. Late blight of potatoes and the weather. W. H. Martin. Apr., 1923.
385. Spinach studies in Passaic County (preliminary report) and cultural notes. L. G. Schermerhorn. June, 1923.
386. Tractor farming in New Jersey, selection and care, operating costs and place in the farm organization. E. R. Gross and A. G. Waller. May, 1923.
387. Analyses of commercial feeding stuffs and registrations for 1923. C. S. Cathcart. Aug., 1923.
388. Observations on the relations between atmospheric conditions and the behavior of mosquitoes. Willem Rudolfs. Sept., 1923.
389. The prediction of egg records. G. W. Hervey. Sept., 1923.

390. Studies on the biology of sewage disposal (Report of the Sewage substation, year ending June 30, 1923) : Chemical studies on the joint sewage disposal plant of Plainfield, North Plainfield, and Dunellen. F. L. Campbell and Willem Rudolfs.— Studies of the fauna of the sprinkling filter bed and Imhoff tanks. L. A. Hausman.— Fungi and algae of the sprinkling filter bed with special reference to their seasonal distribution. C. M. Haenseler, W. W. Moore and J. G. Gaines.— Bacterial studies on the Imhoff tanks and sprinkling filter bed. Margaret Hotchkiss.— Plant and laboratory experiments on the initial dewatering of sludge with aluminun sulfate to hasten air drying on beds. Willem Rudolfs, J. R. Downes, and F. L. Campbell. July 1, 1923.
391. The peach tree borer in New Jersey, with notes on similar pests. Alvah Peterson. Aug. 1, 1923.
392. Analysis of materials sold as insecticides and fungicides during 1923. C. S. Cathcart, R. L. Willis, and L. R. Smith. Oct., 1923.
393. Analyses of commercial fertilizers, fertilizer supplies, and home mixtures for 1923. C. S. Cathcart. Nov., 1924 [i. e. 1923].
394. A bacteriological study of a sewage disposal plant. W. H. Gaub, jr. Mar., 1924.
395. Analyses of commercial fertilizers and ground bone, analyses of agricultural lime, 1923. C. S. Cathcart. Dec., 1923.
396. Fertilizer registrations for 1924. C. S. Cathcart. Jan. 17, 1924
397. Results of seed and legume inoculant inspection for 1923. J. G. Fiske. Mar., 1924.
398. Sweet potato studies in New Jersey. L. G. Schermerhorn. Aug , 1924.
399. Analyses of commercial feeding stuffs and registrations for 1924. C. S. Cathcart. July, 1924.
400. Some further facts relative to the principles underlying the making and use of nicotine dust. T. J. Headlee and Willem Rudolfs. Aug., 1924.
401. The stem rot of sweet potatoes, losses, sources of infection and control. R. F. Poole. Aug., 1924.
402. Seasonal and annual egg-production-correlation tables. G. W. Hervey. Sept., 1924.
403. Studies on the biology of sewage disposal (Third annual report of the Sewage substation for the year ending June 30, 1924) : Chemical studies on operating and resting Imhoff tanks. F. L. Campbell and Willem Rudolfs.— Bacteriological investigations on operating and resting Imhoff tanks. Margaret Hotchkiss.— Studies of the fauna of Imhoff tanks and sprinkling beds. J. B. Lackey.— Digestion of fresh solids. Willem Rudolfs, F. L. Campbell, Margaret Hotchkiss, and J. B. Lackey.— Fungi and algae of the sprinkling filter bed and their distribution. Willem Rudolfs and H. A. Trajkovich.— Experiments on the physiology of fungus No. 2 (Penicillium). Willem Rudolfs and H. A. Trajkovich.— Digestion of fresh solids and fresh solids contaminated with partially digested material. Willem Rudolfs and J. B. Lackey.— Film removal studies. Willem Rudolfs. July 1, 1924.
404. The effect of the weight of the seed on the growth of the plant. David Schmidt. Nov., 1924.
405. Analyses of commercial fertilizers, fertilizer supplies and home mixtures for 1924. C. S. Cathcart. Nov., 1924.
406. The chemical composition of the soils of the Bernardsville area in New Jersey. A. W. Blair and A. L. Prince. Nov., 1924.
407. Analyses of materials sold as insecticides and fungicides during 1924. C. S. Cathcart and R. L. Willis. Nov., 1924.
408. Alfalfa yields, cultural practices and production costs as influenced by the soil formation in New Jersey. G. W. Musgrave and A. G. Waller. Mar., 1925
409. Analyses of commercial fertilizers and ground bone, analyses of agricultural lime, 1924. C. S. Cathcart. Dec., 1924.

NEW MEXICO AGRICULTURAL EXPERIMENT STATION, STATE COLLEGE

BULLETINS

135. Summary of codling moth investigations, with spraying schedules. A. B. Fite. Feb., 1923.
136. (Technical.) A study of alkali and plant food under irrigation and drainage. C. W. Botkin. Apr., 1923.
137. Alfalfa fertilizer experiments. C. E. Craig and W. T. Conway. Mar., 1923.
138. Lamb feeding experiments. J. L. Lantow and M. G. Snell. Apr., 1923.
139. Alfalfa. G. R. Quesenberry. May, 1923.

140. The utilization of feed by range steers of different ages. M. G. Snell. Dec., 1923. Popular edition of Buls. 91, 103, 128.
141. Cotton. J. C. Overpeck and W. T. Conway. Jan., 1924.
142. (Technical.) The toxicity, movement, and accumulation of nitrates and other salts occurring in arid soils. C. E. Craig. Apr., 1924.
143. (Technical.) Nutritive properties of pinto beans and pinto bean straw and their use as feed for cattle. H. W. Titus. May, 1924.
144. Preliminary report on range cow supplemental feeding. J. L. Lantow and M. G. Snell. June, 1924.

NEW YORK CORNELL AGRICULTURAL EXPERIMENT STATION, ITHACA

BULLETINS

414. Cost accounts for six years on some successful New York farms. G. F. Warren, V. B. Hart, W. I. Myers, R. L. Gillett, C. V. Noble, and others. Feb., 1923.
415. Results of some experiments in pruning fruit trees. W. H. Chandler. Jan., 1923.
416. Prices of farm products in New York. G. F. Warren. Jan., 1923.
417. The maple case-bearer [*Paraclemensia acerifoliella* Fitch, orders Lepidoptera, family, Incurvariidae.] G. W. Herrick. Apr., 1923.
418. The clarification of milk for cheese making. W. W. Fisk and W. V. Price. Apr., 1923.
419. The apple-tree crotch, histological studies and practical considerations. L. H. MacDaniels. May, 1923.
420. Three little-known clover insects: The clover-head weevil (*Phytonomus meles* Fab.), the lesser clover-leaf weevil (*Phytonomus nigrirostris* Fab.), the clover-seed weevil (*Tychius picirostris* Fab.), order, Coleoptera, family, Curculionidae. J. T. Detwiler. May, 1923.
421. Economic studies of dairy farming in New York: I, Condensery milk without cash crops. E. G. Misner. June, 1923.
422. The social areas of Otsego County. Dwight Sanderson and W. S. Thompson. July, 1923.
423. The standard of life in a typical section of diversified farming. E. L. Kirkpatrick. July, 1923.
424. Studies of various factors influencing the yield and the duration of life of meadow and pasture plants. R. G. Wiggans. Aug., 1923.
425. Studies on the treatment and the disposal of dairy wastes. C. L. Walker and others. Nov., 1923.
426. The movement of farm population. E. C. Young. Mar., 1924.
427. Farm motor trucks in New York. V. B. Hart. May, 1924.
428. The clover-seed caterpillar [*Laspeyresia interstinctana* Clemens, order, Lepidoptera, family, Tortricidae]. L. P. Wehrle. June, 1924.
429. The control of bacterial blight of celery by spraying and dusting. H. W. Dye and A. G. Newhall. June, 1924.
430. An economic study of rural store credit in New York. Leland Spencer. Sept., 1924.
431. The cost of living in a small factory town. C. V. Noble. Sept., 1924.
432. An economic study of dairying on 163 farms in Herkimer County, New York. E. G. Misner. Sept., 1924.
433. Economic studies of dairy farming in New York: II, Grade A milk with and without cash crops. E. G. Misner. Oct., 1924.
434. Experiments in crop rotation and fertilization. R. G. Wiggans. Nov., 1924.
435. The organization and development of cooperative fire insurance companies in New York. R. W. Bartlett. Dec., 1924.

MEMOIRS

62. Factors influencing catalase activity in apple-leaf tissue. A. J. Heinicke. Jan., 1923.
63. The relation of soil moisture and nitrates to the effects of sod on apple trees. T. L. Lyon, A. J. Heinicke, and B. D. Wilson. Jan., 1923.
64. Relation of the composition of rations on some New York dairy farms to the economics of milk production. E. G. Misner. Feb., 1923.
65. The nature and reaction of water from hydathodes. J. K. Wilson. Feb., 1923.
66. Simplified apparatus and technique for the electrometric determination of hydrogen ion concentration in milk and other biological liquids. F. E. Rice and A. J. Rider. Apr., 1923.

67. Observations on the life history of *Taphrocerus gracilis* (Say), beetle, family Buprestidae. R. N. Chapman. May, 1923.
68. The Lepidoptera of New York and neighboring States, primitive forms, Microlepidoptera, Pyraloids, Bombyces. W. T. M. Forbes. June, 1923.
69. The morphology of the double kernel in *Zea mays* var. *polysperma*. M. E. Stratton. June, 1923.
70. The inheritance of blotch leaf in maize. R. A. Emerson. June, 1923.
71. Some studies on the neutralization of cream for butter-making. H. C. Jackson. July, 1923.
72. The inheritance of a lethal pale green seedling character in maize. A. M. Brunson. Jan., 1924.
73. Crown-gall of apple and peach with notes on the biology of *Bacterium tumefaciens*. Donald Reddick and V. B. Stewart. Mar., 1924.
74. Catalase activity in dormant apple twigs, its relation to the condition of the tissue, respiration, and other factors. A. J. Heinicke. Mar., 1924.
75. Nitrate of soda in the nutrition of the tomato. Paul Work. June, 1924.
76. Effect of the process of manufacture on the germ content of bulk condensed milk. H. A. Ruehe. July, 1924.
77. A systematic study of the Anthomyiinae of New York, with especial reference to the male and female genitalia. H. C. Huckett. Aug., 1924.
78. A study of the leaf-mining Diptera of North America. S. W. Frost. Aug., 1924.
79. A biological study of *Aphelinus mali* Hald., a parasite of the woolly apple aphid, *Eriosoma lanigera* Hausm. A. E. Lundie. Aug., 1924.
80. The Cicadellidae of the vicinity of Ithaca, New York, with special reference to the structure of the gonapophyses. J. L. Buys. Dec., 1924.
81. Some effects of freezing on mature fruits of the apple. D. B. Carrick. Dec., 1924.
82. Inheritance of xantha seedlings in maize. Helen Trajkovich. Dec., 1924.
83. The inheritance of brown aleurone in maize. Paul Kvakan. Dec., 1924.
84. Genetic relations of five factor pairs for virescent seedlings in maize. M. Demerec. Dec., 1924.

NEW YORK STATE AGRICULTURAL EXPERIMENT STATION, GENEVA

BULLETINS

496. Twenty-two years of tuberculin testing in the same herd. A. C. Dahlberg. Jan., 1923.
497. New or noteworthy fruits, VI. U. P. Hedrick. Jan., 1923.
*498. Stocks for plums. U. P. Hedrick. Jan., 1923.
499. Composition and prices of commercial fertilizers in New York in 1922. L. L. Van Slyke. Mar., 1923.
*500. Growth and yield of apple trees pruned in various ways. G. H. Howe. Mar., 1923.
501. Factors which affect the volatility of nicotine from insecticide dusts. R. W. Thatcher and L. R. Streeter. Mar., 1923.
502. The aphiscidal properties of tobacco dust. G. F. MacLeod and S. W. Harman. Apr., 1923.
*503. Final report on the cooperative experiments in orchard fertilization. R. C. Collison and J. D. Harlan. Apr., 1923.
504. Work of the seed testing laboratory from 1918 to 1923, with notes on seed quality, seed testing, seed law compliance, and trade practices. M. T. Munn and E. F. Hopkins. Nov., 1923.
*505. The relation of moisture content and certain other factors to the popping of popcorn. F. C. Stewart. Dec., 1925.
506. Investigations of cauliflower diseases on Long Island. E. E. Clayton. Jan., 1924.
507. The quality of packet vegetable seed on sale in New York. M. T. Munn and E. F. Hopkins. Jan., 1924.
*508. The behavior of American grapes grafted on vigorous stocks. F. E. Gladwin. Jan., 1924.
*509. Studies of fruit seed storage and germination. H. B. Tukey. Jan., 1924.
510. Twenty years' profits from an apple orchard. U. P. Hedrick. Jan., 1924.

*Bulletins marked with an asterisk (*) were issued in popular form with the same or modified titles.

511. Composition and prices of commercial fertilizers in New York in 1923. L. L. Van Slyke. Feb., 1924.
512. Control of the cabbage maggot in the seedbed. Hugh Glasgow. Feb., 1924.
513. Cabbage seedbed diseases and Delphinium root rots, their relation to certain methods of cabbage-maggot control. W. O. Gloyer and Hugh Glasgow. Feb., 1924.
514. New or noteworthy fruits, VII. U. P. Hedrick. Feb., 1924.
515. Composition of official samples of feeding-stuffs and mixtures collected in New York from January to July, 1923. L. L. Van Slyke. Feb., 1924.
*516. Twenty-five years of fertilizers in a New York apple orchard. U. P. Hedrick and H. B. Tukey. Feb., 1924.
517. Comparative efficiency of dust and spray mixtures in controlling the currant aphis. P. J. Parrott and S. W. Harman. July, 1924.
*518. Experiments with potatoes: I, Dusting vs. spraying. F. C. Stewart and P. J. Parrott.— II, Row competition and border effect. F. C. Stewart. July, 1924.
519. Dusting and spraying to control grape root-worm. F. Z. Hartzell. July, 1924.
520. The grafting of American grapes. F. E. Gladwin. July, 1924.
521. Chemical studies of the combined lead arsenate and lime-sulfur spray. R. W. Thatcher and L. R. Streeter. Aug., 1924.
*522. Control of leafroll and mosaic in potatoes by isolating and roguing the seed plat. F. C. Stewart. Aug., 1924.
523. Fumigation with hydrogen cyanide for control of pear psylla. R. L. Webster. Nov., 1924.
524. Milking machines: VIII, The sanitary efficiency of a simplified type of milking machine. F. L. Mickle. Nov., 1924.
525. Changes in the composition and cost of fertilizers in New York from 1914 to 1924. L. L. Van Slyke. Dec., 1924.
*526. Variations in varieties of canning peas. F. H. Hall. Dec., 1924.

TECHNICAL BULLETINS

92. Studies with corn pollen: I, Analysis and composition of corn pollen. R. J. Anderson and W. L. Kulp.— II, Concerning certain lipoids, a hydrocarbon, and phytosterol occurring in the pollen of white flint corn. R. J. Anderson. Feb., 1923.
93. Methods of Gram staining. G. J. Hucker and H. J. Conn. Mar., 1923.
94. A statistical study of some field plat yields: I, Tobacco investigations at Baldwinsville in cooperation with the Bureau of plant industry, United States department of agriculture: II, the clover vs. timothy rotation experiment on the station farm at Geneva; III, fertilizer plat experiments on the station farm at Geneva. R. C. Collison and J. D. Harlan. July, 1923.
95. Studies with phytosterols: Phytosterols of corn oil, cottonseed oil, and linseed oil. R. J. Anderson and M. G. Moore. Aug., 1923.
96. Chemical studies of grape pigments: The anthocyans in Norton and Concord grapes. R. J. Anderson. Aug., 1923.
97. Factors influencing the activity of spore-forming bacteria in soil. J. S. Joffe and H. J. Conn. Oct., 1923.
98. The relation between the clumps of bacteria found in market milk and the flora of dairy utensils. W. A. Whiting. Nov., 1923.
99. Studies on the Coccaceae: I, Previous taxonomic studies concerning the genera of the Coccaceae. G. J. Hucker. June, 1924.
100. Studies on the Coccaceae: II, A study of the general characters of the Micrococci. G. J. Hucker, June, 1924.
101. Studies on the Coccaceae: III, The nitrogen metabolism of the Micrococci. G. J. Hucker. June, 1924.
102. Studies on the Coccaceae: IV, The classification of genus *Micrococcus* Cohn. G. J. Hucker. June, 1924.
103. Studies on the Coccaceae: V, Serological studies of the Micrococci. G. J. Hucker. June, 1924.
104. Filtration and clarification of milk. A. C. Dahlberg and J. C. Marquardt. July, 1924.
105. The bacterial flora of milking machines. A. H. Robertson. July, 1924.

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* Bulletins marked with an asterisk (*) were issued in popular form with the same or modified titles.

106. An experiment in breeding apples, II. Richard Wellington. Aug., 1924.
107. A correlation between color of grape leaves at time of foliation and fruit color. F. E. Gladwin. Sept, 1924.
108. Studies with phytosterols: I, The phytosterols of the endosperm of corn. R. J. Anderson.— II, The phytosterols of wheat endosperm; III, the separation of unsaturated from saturated sterols; IV, reduction of sitosterol preparation of dihydrositosterol or sitostanol; V, sitosterol. R. J. Anderson and F. P. Nabenhauer. Sept., 1924.
109. A taxonomic review of currants and gooseberries. Alwin Berger. Dec., 1924.

NORTH CAROLINA AGRICULTURAL EXPERIMENT STATION, STATE COLLEGE STATION, RALEIGH

TECHNICAL BULLETINS

22. Digestive coefficients of poultry feeds and rapidity of digestion and fate of grit in the fowl. B. F. Kaupp and J. E. Ivey. June, 1923.
23. Hybridization of *Vitis rotundifolia*, inheritance of anatomical stem characters. C. F. Williams. June, 1923.
24. Nitrification and acidity in the muck soils of North Carolina. L. G. Willis. Nov., 1923.
25. Major plant communities of North Carolina. B. W. Wells. Apr., 1924.

NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION, STATE COLLEGE STATION, FARGO

BULLETINS

166. Diseases of grain and forage crops in North Dakota. Wanda Weniger. May, 1923.
167. The northern pig, its breeding and management. J. H. Shepperd. July, 1923.
168. History of a "swamp fever" virus carrier. A. F. Schalk and L. M. Roderick. Aug., 1923.
169. Winter wheat in North Dakota. L. R. Waldron and T. E. Stoa. Aug., 1923. Revision of 151.
170. Perennial flowers for North Dakota homes. A. F. Yeager and F. M. Heath. Dec., 1923.
171. Cash and share renting of farms. A. H. Benton. Feb., 1924.
172. Dockage in wheat in North Dakota, Foster County, in detail. A. H. Benton. Feb., 1924.
173. Onion growing in North Dakota. A. F. Yeager. Feb., 1924.
174. Experiment station progress, Report of director, July, 1921, to June 30, 1923. P. F. Trowbridge. Feb., 1924.
175. Report of a farm credit survey of four townships, Foster County, North Dakota. R. E. Willard. Feb., 1924.
176. Ergot and its control. Wanda Weniger. Apr., 1924.
177. Effect of first generation hybrids upon yield of corn. L. R. Waldron. Apr., 1924.
178. Flaxseed production. T. E. Stoa and A. C. Dillman. Apr., 1924.
179. Pale western cutworm [*Porosagrotis orthogonia* Morrison] in North Dakota. R. L. Webster and C. N. Ainslie. Apr., 1924.
180. An economic study of farming in southwestern North Dakota. R. E. Willard and L. A. Reynoldson. July, 1924.
181. Perennial sow thistle, growth and reproduction. O. A. Stevens. Aug., 1924.
182. Marketing dairy products: Creameries and cooperative cream-shipping stations in North Dakota. A. H. Benton. Oct., 1924.
183. The agricultural regions of North Dakota. R. E. Willard. Dec., 1924.
184. Varietal trials with barley in North Dakota. T. E. Stoa. Oct., 1924.

OHIO AGRICULTURAL EXPERIMENT STATION, WOOSTER

BULLETINS

364. The strawberry, its culture and varieties. Paul Thayer. June, 1923.
365. Prices of Ohio farm products. J. I. Falconer. June, 1923.
366. The insects of the soybean in Ohio. W. V. Balduf. June, 1923.
367. A comparison of types of lambs and systems of production. J. W. Hammond. June, 1923.
368. Potato hopperburn (tipburn) control with Bordeaux mixture. T. H. Parks and E. E. Clayton. June, 1923.

369. Field corn and silage corn for silage. C. C. Hayden and A. E. Perkins. June, 1923.
370. Losses and exchanges of material during the storage of corn as silage. A. E. Perkins. June, 1923.
371. The red and white currants, their history, varieties, and classification. Paul Thayer. June, 1923.
372. The apple flea-weevil (*Orchestes pallicornis* Say), order Coleoptera, family, Curculionidae. J. S. Houser. June, 1923.
373. Forty-second annual report of the Ohio agricultural experiment station for the year ended June 30, 1923. C. G. Williams. June, 1923.
374. Potato diseases. Mar., 1924. Supersedes 319.
375. Cooperative livestock marketing in Ohio. B. A. Wallace. Apr., 1924.
376. Effect of high and low protein content on the digestibility and metabolism of dairy rations. A. E. Perkins and C. F. Monroe. May, 1924.
377. Manures and fertilizers for truck crops. J. H. Gourley and Roy Magruder. June, 1924.
378. Anthelmintic experiments with hogs. D. C. Mote. June, 1924.
379. Soil potassium as affected by fertilizer treatment and cropping. J. W. Ames and R. H. Simon. June, 1924.
380. The availability of phosphorus in calcareous and noncalcareous soils. J. W. Ames and C. J. Schollenberger. June, 1924.
381. The maintenance of soil fertility, thirty years' work with manure and fertilizers. C. E. Thorne. June, 1924.
382. Forty-third annual report of the Ohio agricultural experiment station for the year ended June 30, 1924. C. G. Williams. June, 1924.

OKLAHOMA AGRICULTURAL EXPERIMENT STATION, STILLWATER

BULLETINS

146. Sheep feeding investigations: Comparative rations for fattening wether lambs. A. E. Darlow. [1923.]
147. Cattle feeding investigations: Finishing baby beef. W. L. Blizzard. [1923.]
148. Swine feeding investigations: Oklahoma feeds and how to prepare them. C. P. Thompson. Oct. 5, 1923.
[149.] Cattle feeding investigations: [Baby beef.] W. L. Blizzard. [1923.] (Press buls. 196, 197.)

OREGON AGRICULTURAL EXPERIMENT STATION, CORVALLIS

BULLETINS

196. Finishing pigs for market. A. W. Oliver and E. L. Potter. Jan., 1923. Revision of 165.
197. A chemical study of legumes and other forage crops of western Oregon. J. S. Jones and D. E. Bullis. July, 1923.
198. Fattening lambs on alfalfa. E. L. Potter and H. K. Dean. Aug., 1923.
199. Sulfur in relation to soil fertility. W. L. Powers. Dec., 1923.
200. A study of growth in summer shoots of the apple with special consideration of the role of carbohydrates and nitrogen. E. M. Harvey. Dec., 1923.
201. The preparation of spray materials. R. H. Robinson. Jan., 1924.
202. The relation of humidity to the texture, weight, and volume of filberts. Henry Hartman. Apr., 1924.
203. Forage crops for Oregon coast counties. A. E. Engbretson and G. R. Hyslop. May, 1924.
204. Spring crops for eastern Oregon. D. E. Stephens, Robert Withycombe, and Obil Shattuck. May, 1924.
205. Drying prunes in Oregon. E. H. Wiegand. May, 1924.
206. Studies relating to the harvesting and storage of apples and pears. Henry Hartman. July, 1924.
207. The European earwig. B. B. Fulton. Aug., 1924.
208. Filberts: Part I, Growing filberts in Oregon; Part II, experimental data on filbert pollination. C. E. Schuster. Aug., 1924.
209. Dry-farm crop rotation experiments at Moro, Oregon. D. E. Stephens. Sept., 1924.
210. A progress report of alkali land reclamation investigations in eastern Oregon. W. W. Johnston and W. L. Powers. Oct., 1924.

PENNSYLVANIA AGRICULTURAL EXPERIMENT STATION, STATE COLLEGE

BULLETINS

178. Silage feeding investigations for milk production. S. I. Bechdel. Feb., 1923.
179. Results of tobacco experiments in Pennsylvania, 1912 to 1922. Otto Olson. June, 1923.
180. Author index of the publications of the Pennsylvania agricultural experiment station. William Frear and T. I. Mairs. Aug., 1923.
181. 36th annual report of the director for the fiscal year ending June 30, 1923. R. L. Watts. Sept., 1923.
182. The effects of feeding punctures of aphids on certain plant tissues. J. L. Horsfall. Nov., 1923.
183. Steer feeding experiments at the Pennsylvania State college. W. H. Tomhave and F. L. Bentley. Dec., 1923.
184. Adjusting production to meet home market demands in Blair County, Pennsylvania, a report of the extent to which Blair County farmers are meeting the demands of Altoona for agricultural products. R. B. Dunlap, B. H. Critchfield, and M. V. Carroll. Jan., 1924.
185. Life history studies of *Myzus persicae* Sulzer. J. L. Horsfall. Feb., 1924.
186. The control of plant lice on vegetables. J. L. Horsfall. Mar., 1924.
187. Soybeans, their culture and uses. C. F. Noll and R. D. Lewis. Apr., 1924.
188. 37th annual report of the director for the fiscal year ending June 30, 1924. R. L. Watts. Aug., 1924.
189. (Technical bulletin.) Statistical studies of inheritance in the tomato: A statistical comparison between parental forms and certain segregates in a cross of the common garden tomato, *Lycopersicum esculentum,* by pear tomato, *Lycopersicum pyriforme,* and the significance of these differences as illustrated by certain statistical constants. C. E. Myers. Sept., 1924.
190. Comparison of materials used in spraying and dusting for apple scab control in Pennsylvania. H. W. Thurston, jr., R. C. Walton, and F. N. Fagan. Dec., 1924.

PORTO RICO AGRICULTURAL EXPERIMENT STATION, MAYAGUEZ

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30. Coffee varieties in Porto Rico. T. B. McClelland. June, 1924.

RHODE ISLAND AGRICULTURAL EXPERIMENT STATION, KINGSTON

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191. The colon-typhoid intermediates as causative agents of disease in birds: II, Atypical organisms. H. G. May and H. A. M. Tibbetts. Jan., 1923.
192. Preliminary study of the methods and means of handling fresh produce in Rhode Island. H. B. Hall. Jan., 1923.
193. Thirty-fifth annual report of the director [1922]. B. L. Hartwell. Feb., 1923.
194. "Active" aluminum as a factor detrimental to crop production in many acid soils. P. S. Burgess and F. R. Pember. June, 1923.
195. On the amount of stable manure necessary for vegetable growing. B. L. Hartwell and F. K. Crandall. Aug., 1923.
196. The comparative crop effect of fertilizer chemicals, cow manure with straw bedding or with planer-shavings bedding, and of the latter supplemented with phosphorus or potassium. B. L. Hartwell, S. C. Damon, and F. K. Crandall. Nov., 1923.
197. The examination of eggs from infected and immunized hens, with germicidal tests on albumen and blood serum. H. G. May. May, 1924.
198. The yield and mineral content of crop plants as influenced by those preceding. P. S. Burgess. June, 1924.

SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION, CLEMSON COLLEGE

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216. Velvet beans for dairy cows. J. P. Lamaster and I. R. Jones. Sept., 1923.
217. Analyses of commercial fertilizers, 1922–1923. R. N. Brackett and H. M. Stackhouse. Aug., 1923.
218. Certified seed in Irish potato production. A. M. Musser and C. A. Ludwig. Dec., 1923.

219. Cotton production, factors affecting earliness and yield. C. P. Blackwell and T. S. Buie. Mar., 1924.
220. Analyses of commercial fertilizers, 1923–1924. R. N. Brackett and H. M. Stackhouse. Aug., 1924.
221. Farm organization and cost of production on cotton farms in Anderson County, S. C. W. C. Jensen. Sept., 1924.

SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION, BROOKINGS

BULLETINS

201. Some experiments with spring wheat in South Dakota. A. N. Hume and A. T. Evans. Feb., 1923.
202. The chinch bug [*Blissus leucopterus* Say]. H. C. Severin. Apr., 1923.
203. Pasteurization of market milk in the glass enameled tank and in-the-bottle. T. H. Wright, jr. June, 1923.
204. Varieties of corn for South Dakota. A. N. Hume. Aug., 1923.
205. Some tentative statements concerning Fowlds hulless oats. A. N. Hume. Mar., 1924.
206. Purebred dairy sires, their value and influence on production. T. M. Olson and R. M. Gilcreast. May, 1924.
207. Forage crops for lambs. J. W. Wilson and A. H. Kuhlman. May, 1924.
208. Flowers every day in the year. N. E. Hansen. May, 1924.
209. Potatoes as a feed for fattening pigs. J. W. Wilson and A. H. Kuhlman. May, 1924.
210. Some chemical characteristics of soft corn. Alfred Bushey. June, 1924.
211. Weeds and their control. E. J. Petry. Dec., 1924.

TENNESSEE AGRICULTURAL EXPERIMENT STATION, KNOXVILLE

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127. Cotton culture in Tennessee. C. A. Mooers and S. A. Robert. Apr., 1923.
128. The strawberry crown borer in Tennessee. Simon Marcovitch. Nov., 1923.
129. Dark tobacco, fertility experiments at the Clarksville station, results from a ten-year period, 1913–1922. C. A. Mooers and R. H. Milton. June, 1924.
130. The soils of Rutherford County. C. A. Mooers and H. H. Coryell. June, 1924.
131. New insecticides for the Mexican bean beetle and other insects. Simon Marcovitch. Oct., 1924.

TEXAS AGRICULTURAL EXPERIMENT STATION, COLLEGE STATION

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305. Swine feeding experiments: I, Three methods of pig raising. G. R. Warren.— II. Dried buttermilk for growing pigs. D. W. Williams and G. R. Warren.— III, Cottonseed and cottonseed meal for fattening pigs. G. R. Warren and D. W. Williams.— IV. Peanut grazing and self-feeders for fattening pigs; V, protein supplements in fattening rations for pigs. G. R. Warren. Feb., 1923.
306. Grain sorghums versus corn for fattening lambs: Third experiment. J. M. Jones and R. E. Dickson. Feb., 1923.
307. Texas root rot of cotton and methods of its control. J. J. Taubenhaus and D. T. Killough. Apr., 1923.
308. The sweet potato weevil. H. J. Reinhard. Apr., 1923.
309. I, Fattening steers on cottonseed meal and hulls with and without corn; II, the influence of age on fattening steers. J. M. Jones, J. L. Lush, and J. H. Jones. June, 1923.
310. The interpretation of correlation data. A. B. Conner. Sept., 1923.
311. The influence of individuality, age, and season upon the weights of fleeces produced by range sheep. J. L. Lush and J. M. Jones. Sept., 1923.
312. Commercial fertilizers in 1922–23. G. S. Fraps and S. E. Asbury. Sept., 1923.
313. Rice bran and rice polish for growing and fattening pigs. G. R. Warren. Oct., 1923.
314. Commercial feeding stuffs, September 1, 1922, to August 31, 1923. Bonney Youngblood [and others]. Nov., 1923.
315. Digestion experiments with oat by-products and other feeds. G. S. Fraps. Feb., 1924.

316. The soils of Brazos, Camp, Ellis, and Washington Counties. G. S. Fraps. Feb., 1924.
317. Comparative influences of various protein feeds on laying hens. R. M. Sherwood. Feb., 1924.
318. The relation between rents and agricultural land values in theory and in practice. F. A. Buechel. Feb., 1924.
319. Field and laboratory notes on a fatal disease of cattle occurring on the coastal plains of Texas (loin disease), a preliminary report. H. Schmidt. Feb., 1924.
320. The influence of individuality, age, and season upon the weights of fleeces produced by Angora goats under range conditions. J. L. Lush and J. M. Jones. Mar., 1924.
321. Cotton variety experiments at the main station, 1912 to 1922. G. N. Stroman. May, 1924.
322. Commercial fertilizers in 1923–1924. G. S. Fraps and S. E. Asbury. Sept., 1924.
323. The price of feed utilities. G. S. Fraps. Sept., 1924.
324. Commercial feeding stuffs. September 1, 1923, to August 31, 1924. Bonney Youngblood, F. D. Fuller, and S. D. Pearce. Oct., 1924.
325. Effect of cropping upon the active potash of the soil. G. S. Fraps. Sept., 1924.

UTAH AGRICULTURAL EXPERIMENT STATION, LOGAN

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184. A farm-management study of the Great Salt Lake Valley. George Stewart. May, 1923.
185. (Technical.) The influence of nitrogen in soil on azofication. J. E. Greaves and D. H. Nelson. July, 1923.
186. Irrigation experiments with sugar beets. F. S. Harris and D. W. Pittman. Sept., 1923.
187. Irrigation experiments with potatoes. F. S. Harris and D. W. Pittman. Sept., 1923.
188. Maintaining the productivity of irrigated land. D. W. Pittman. June, 1924.
189. Ridding the land of wild morning glory. George Stewart and D. W. Pittman. Aug., 1924.
190. Corn silage in a dairy ration. W. E. Carroll. Aug., 1924.
191. A taxonomic and ecological study of the species of the subfamily Oedipodinae, (Orthoptera-Acrididae) found in Utah, with a summary of world distribution and a list of Orthoptera recorded for the State. W. W. Henderson. Sept., 1924.

VERMONT AGRICULTURAL EXPERIMENT STATION, BURLINGTON

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230. Concerning blood complement. F. A. Rich. Mar., 1923.
231. Concerning infectious abortion. F. A. Rich. Apr., 1923.
232. Sterility of strawberries; strawberry breeding. M. B. Cummings and E. W. Jenkins. May, 1923.
233. Agricultural seed inspection. A. S. Lutman. Oct., 1923.
234. Commercial fertilizers. J. L. Hills, C. H. Jones, and G. F. Anderson. July, 1923.
235. Studies in tolerance of New England forest trees: IV, Minimum light requirement referred to a definite standard. G. P. Burns. July, 1923.
236. Commercial feeding stuffs. J. L. Hills, C. H. Jones, and G. F. Anderson. Sept., 1923.
237. Commercial feeding stuffs. J. L. Hills, C. H. Jones, and G. F. Anderson. Mar., 1924.
238. Studies on the effects of air temperature and relative humidity on the transpiration of *Pinus strobus*. E. J. Dole. July, 1924.
239. Some natural violet hybrids of North America. Ezra Brainerd, introduction by G. P. Burns. July, 1924.
240. Commercial fertilizers. J. L. Hills, C. H. Jones, and G. F. Anderson. Aug., 1924.
241. Agricultural seed inspection. A. S. Lutman. Oct., 1924.
242. Commercial feeding stuffs. J. L. Hills, C. H. Jones, and G. F. Anderson. Oct., 1924.
243. Feeding cocoa meal to dairy cows. H. B. Ellenberger and J. A. Newlander. Dec., 1924.

VIRGIN ISLANDS AGRICULTURAL EXPERIMENT STATION, ST. CROIX

BULLETINS

3. Insect pests of cotton in St. Croix and means of combating them. C. E. Wilson. May 19, 1923.
4. Truck-crop insect pests in the Virgin Islands and methods of combating them. C. E. Wilson. June 21, 1923.

VIRGINIA AGRICULTURAL EXPERIMENT STATION, BLACKSBURG

BULLETINS

231. Experiments with dark tobacco and other crops. B. G. Anderson. Feb., 1923.
232. The squash lady-bird beetle. G. W. Underhill. July, 1923.
233. Experiments with bright tobacco and other crops grown on bright tobacco farms. T. B. Hutcheson and D. J. Berger. Sept., 1923.
234. The present status of the oriental fruit moth in northern Virginia, with report of recent orchard spraying experiments on its control. L. A. Stearns. Feb. 1924.
235. Soybean culture. T. K. Wolfe. Mar., 1924.
236. Apple scab and its control in Virginia. F. J. Schneiderhan and F. D. Fromme. Mar., 1924.
237. Lime and its relation to crop production in Virginia. T. B. Hutcheson and T. K. Wolfe. Nov., 1924.
238. Sheep management in southwest Virginia as shown by a survey of 100 farms. C. R. Nobles. Dec., 1924.

TECHNICAL BULLETINS

26. A biometrical analysis of characters of maize and of their inheritance. T. K. Wolfe. Feb., 1924.
27. The effects of fertilizers and hybridization on maturity and yield of corn. T. B. Hutcheson and T. K. Wolfe. Apr., 1924.

WASHINGTON AGRICULTURAL EXPERIMENT STATION, PULLMAN

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*152. Twenty-seventh annual report for the year ending June 30, 1917. Jan., 1918.
174. Tolerance of San José scale to sprays. A. L. Melander. Feb., 1923.
175. Thirty-second annual report for the fiscal year ending June 30, 1922. E. C. Johnson. Dec., 1922.
176. The influence of precipitation on soil composition and on soil organic matter maintenance. F. J. Sievers and H. F. Holtz. Feb., 1923.
177. (Technical paper.) Apple rosette. O. M. Morris. July, 1923.
178. The feeding and management of dairy calves. E. V. Ellington and J. C. Knott. Sept., 1923.
179. Washington oats. E. G. Schafer, E. F. Gaines, and O. E. Barbee. Dec., 1923.
180. Thirty-third annual report for the fiscal year ended June 30, 1923. E. C. Johnson. Dec., 1923.
181. Washington barleys. E. G. Schafer, E. F. Gaines, and O. E. Barbee. Feb., 1924.
182. Cost of producing milk, and dairy farm organization in Spokane and Stevens Counties. George Severance and G. O. Baker. Aug., 1924.
183. (Technical paper.) The principles of summer-fallow tillage. M. A. McCall and H. M. Wanser. Oct., 1924.
184. Oil sprays, their preparation and use for insect control. A. L. Melander, Anthony Spuler, and E. L. Green. Nov., 1924.
185. Lamb feeeding experiments at the irrigation branch experiment station, 1922–23 and 24. Howard Hackedorn, R. P. Bean, and Jerry Sotola. Nov., 1924.
186. Beef cattle feeding experiments in 1922–23 and 24. Howard Hackedorn, Jerry Sotola, and R. P. Bean. Nov., 1924.
187. Thirty-fourth annual report for the fiscal year ended June 30, 1924. E. C. Johnson. Dec., 1924.
188. Washington poultry houses. J. S. Carver, G. R. Shoup, W. D. Buchanan, and L. J. Smith. Jan., 1925.
189. The fertility of Washington soils. F. J. Sievers and H. F. Holtz. Dec., 1924.

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* Publication delayed, issued in 1925.

POPULAR BULLETINS

122. Inoculation in the growing of legumes. P. W. Allen. Jan., 1923.
123. Plans for small barns. L. J. Smith. Apr., 1923.
124. An economical farm level. L. J. Smith. Dec., 1923.
125. Stationary spray plants. O. M. Morris. Jan., 1924.
126. Sprays for San José scale and leaf-roller. A. L. Melander. Feb., 1924.
127. Mineral feeds for farm animals. Jerry Sotola, R. T. Smith, E. V. Ellington, and L. W. Cassel. Apr., 1924.
128. Gypsum and sulfur as fertilizers for legumes. J. L. St. John and J. R. Neller. June, 1924.
129. The care of farm gas engines. C. C. Johnson. July, 1924.
130. Swine judging. R. T. Smith. Sept., 1924.

WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION, MORGANTOWN

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181. Soybean vs. alfalfa hay for milk production. E. L. Anthony and H. O. Henderson. May, 1923.
182. (Technical.) Certain correlations in the weight and number of eggs and the weight of fowls. Horace Atwood. Aug., 1923.
183. (Technical.) Experiments in fertilizing peach trees. H. L. Crane. Mar., 1924.
184. (Technical.) Chemical analyses and fertility of West Virginia soils. O. C. Bryan and E. F. Deatrick. July, 1924.
185. (Technical.) Amount of carbon dioxide given off by eggs during incubation. Horace Atwood and C. E. Weakley, jr. Mar., 1924.
186. Effects of winter rations on pasture gains of beef calves and yearlings. E. W. Sheets and R. H. Tuckwiller. Aug., 1924.
187. Organization and management of typical West Virginia farms. A. J. Dadisman. Aug., 1924.
188. Adjusting agricultural production and distribution in south central West Virginia to meet home market demands. W. W. Armentrout, H. T. Crosby, and H. I. Richards. Oct., 1924.
189. (Technical.) The influence of plot size and replication on experimental error in field trials with potatoes. K. C. Westover. Nov., 1924.
190. Feeding experiments with grade beef cows raising calves. E. W. Sheets and R. H. Tuckwiller. May, 1925.
191. Effect of winter rations on pasture grains of two-year-old steers. E. W. Sheets, E. A. Livesay, R. H. Huckwiller and A. T. Stemple. Dec., 1925.
192. Varietal experiments with wheat, oats, barley, rye, and buckwheat, a preliminary report. R. J. Garber, K. S. Quisenberry, T. E. Odland and T. C. McIlvaine. Dec., 1924.
193. Agricultural experiment station work, tentative plans. H. G. Knight. Dec., 1924.

WISCONSIN AGRICULTURAL EXPERIMENT STATION, MADISON

BULLETINS

352. Science serves Wisconsin farms (Annual report of the director, 1921–1922). H. L. Russell and F. B. Morrison. Feb., 1923.
353. Farm homes. Jan., 1923.
354. The modified leader tree. R. H. Roberts. Feb., 1923.
355. Nicotine dust kills cucumber beetles. J. E. Dudley, jr., H. F. Wilson, and W. D. Mecum. June, 1923.
356. Corn breeding. E. W. Lindstrom. Aug., 1923.
357. Fighting black stem rust of grain by eradicating the barberry. N. F. Thompson and J. G. Dickson. May, 1923. Also numbered State department bulletin 55.
358. Drainage district farms in central Wisconsin. E. R. Jones and B. G. Packer. Oct., 1923.
359. Emergency hay crops. G. B. Mortimer. Jan., 1924.
360. Strawberry culture in Wisconsin. J. G. Moore. Feb., 1924.
361. Liming Wisconsin soils. A. R. Whitson, Griffith Richards, and H. W. Ullsperger. Feb., 1924.
362. New facts in farm science: The Fortieth annual report of the director, 1922–1923. H. L. Russell and F. B. Morrison. Mar., 1924.

363. Farm orchards. J. G. Moore. Apr., 1924.
364. Why some farms pay. P. E. McNall. June, 1924.
365. Drain wet fields. E. R. Jones and O. R. Zeasman. June, 1924.
366. Choose sprays carefully. H. F. Wilson and C. L. Fluke. June, 1924.
367. Cooperative dairy marketing plans. Theodore Macklin. June, 1924.
368. Contagious abortion in cattle. F. B. Hadley. July, 1924.
369. Building the dairy barn. N. S. Fish. Aug., 1924.
370. How to prune the young cherry tree. R. H. Roberts. Oct., 1924.
371. New chick feeding facts. E. B. Hart, Harry Steenbock, J. G. Halpin, and O. N. Johnson. Nov., 1924.

RESEARCH BULLETINS

56. Effect of defoliation upon blossom bud formation, American plum species. R. H. Roberts. Jan., 1923.
57. The fishy flavor in butter. H. H. Sommer and B. J. Smit. Oct., 1923.
58. Service relations of town and country. J. H. Kolb. Dec., 1923.
59. Anthracnose of cane fruits and its control on black raspberries in Wisconsin. L. K. Jones. May, 1924.
60. Rural religious organization, a study of the origin and development of religious groups. J. H. Kolb and C. J. Bornman. June, 1924.

WYOMING AGRICULTURAL EXPERIMENT STATION, LARAMIE

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134. Wintering range calves. F. S. Hultz. May, 1923.
135. Garbage for fattening pigs. F. S. Hultz and L. P. Reeve. May, 1923.
136. Avian type of tuberculosis in cattle, injection and testing, a preliminary report. Cecil Elder and A. M. Lee. June, 1923.
137. Wyoming forage plants and their chemical composition: Studies no. 6. A. T. Cundy. June, 1924.
138. The experimental transmission of swamp fever or infectious anemia by means of secretions. J. W. Scott. June, 1924.
139. Climatological data for Wyoming. F. E. Hepner. June, 1924.

STATE FARMS BULLETIN

4. Some results from agricultural stations over the State from 1923 report. W. L. Quayle. Aug., 1923.

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